Community broadband

Use case

Provide universal, affordable and sustainable broadband connectivity to help your community thrive in a hyper-connected, global economy.

Business success, economic development and even international competition now depend on once unimaginably fast internet speeds. Around the world, ultra-broadband connections can improve efficiency, increase productivity, and supercharge performance. Is it time to consider ultra-broadband for your community? This use case describes how Nokia can help your community stay in or even lead the race to ultra-broadband, which is so essential to the economic positioning of your city.
Challenges

In 2010 when Google asked which communities would want a gigabit fiber network, over 1,100 communities applied. With much greater awareness of the benefits of gigabit networks today, that number would likely be even greater.

There are really only three options to consider when thinking about ways to get ultra-broadband service to your community:

1. Hope that a traditional service provider will build it.
2. Hope that Google Fiber expands and selects your community.
3. Launch your own community-led broadband project.

If you choose the third option, the success of any major investment hinges on careful consideration of five key factors:

- **Economic**: The economics of building and operating an ultra-broadband network are critical to the success of your project. Every community broadband initiative has to understand why current market forces are not producing the affordable, abundant bandwidth that communities seek.

- **Political**: Upgrading a community’s broadband network requires an ongoing commitment, which itself requires a stable political environment with strong leadership. If the community has other pressing issues, a volatile political situation, or leadership not willing to defend the broadband project, it may be difficult for the project to be a long-term success.

- **Legal**: Deployment of a new network or an upgrade to an existing infrastructure will have to address many legal issues. These include:
  - Providing access to rights of ways and poles
  - Ensuring the construction does not violate environmental or historical preservation laws
  - Meeting local and state construction requirements, as well as various local, state and federal obligations to communications providers.

- **Financial**: Every network requires significant up-front capital costs against future revenue streams. Obtaining the most efficient capital is critical to the long-term sustainability of the project. This can be achieved in a wide variety of ways.

- **Technical**: While fiber is the best technology for community broadband networks, there are several technical issues that must be resolved to ensure that the network is planned and deployed to provide for today’s needs and technologies, as well as those of the future.
How we help you

Nokia recognizes both the complexity of community broadband deployments and the fact that it might not be government’s role to manage and operate the network. We offer an end-to-end, flexible approach that is structured to facilitate and secure the deployment of your network.

Work with a reliable partner throughout the entire project cycle

Our approach leverages our experience and expertise with community broadband deployments worldwide to help you:

• **Plan:** Consultancy, business modeling, funding modeling and risk mitigation
• **Design:** Network and detailed infrastructure design
• **Build:** Project governance, execution, installation and commissioning, operation readiness and end-to-end testing
• **Operate:** Maintenance, network operations center (NOC) build and commissioning, management of the interface to service provider networks

Choose a structure to suit your needs

Depending on the model you choose, we can:

• **Do it for you:** We leverage our leading portfolio of products and services, and our experience and expertise, to ensure successful deployment and long-term value—from design to operations.
• **Do it together:** Together with our partners we provide the entire ecosystem to complement your efforts, including:
  - Business case
  - Business model structure
  - Network design
  - Project governance
  - Management of the interface to service provider networks
  - Transfer back to the community/operator
• **Help you do it yourself:** We give you comprehensive guidelines to help you launch your project and conduct day-to-day management, including gigabit playbooks, project blueprints and operation handbooks.

Leverage a best-of breed end-to-end portfolio

From fixed and wireless ultra-broadband to IP and optical networking, operations subsystems/business subsystems (OSS/BSS), and professional services, Nokia is a strong market leader. This allows us to be agnostic, selecting the technologies that offer the best total cost of ownership (TCO)/performance/investment protection ratio for a sustainable investment for all project stakeholders.
Why our approach is different

- An end-to-end offer that encompasses best-of-breed networking technologies and a full set of professional services to offer a reliable, one-stop shop solution for community broadband.
- As a technology and market leader in fixed and wireless broadband access, we are technology agnostic and leverage the best of both worlds to optimize network performance.
- We are used to work with long term investors and consortiums, and leverage this experience to offer a true turnkey approach.
- Beyond the broadband foundation, we can help with smart, safe and sustainable city services.

How you benefit

- Enhance your city’s economic competitiveness by connecting underserved areas to the digital society and economy.
- Retain and attract new citizens and businesses to your community.
- Develop and deploy new digital services (smart, safe and sustainable cities and territories) that will further enhance the attractiveness of your community.
Let us help you

Nokia is committed to helping governments deliver ultra-broadband access to all with more sustainable, affordable and accessible communications. Our mission is to invent and deliver trusted networks that unleash the value, competitiveness and attractiveness of your community, city, region, or nation.